

REMARKS

Favorable reconsideration of the above identified application is requested in view of the following remarks.

Claims 5 and 14 are canceled and Claim 18 is newly added by this amendment. Claims 7-10 and 13 remain canceled. Thus, Claims 1-4, 6, 11, 12 and 15-18 are currently pending in this application, with Claims 1, 17 and 18 being independent.

The Official Action rejects Claims 1-6, 11-12 and 14-17 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,518,479, hereinafter *Grafe*, in view of U.S. Patent No. 5,713,881, hereinafter *Rezai*.

Claim 1 is presently directed to an absorbent structure in an absorbent article. The absorbent structure comprises a compressed foam material which expands upon wetting. The foam material comprises at least two integrated layers having different mean pore sizes, wherein the layers are formed by placing one on top of the other before they are dry so that the layers partly penetrate into each other so that there is no clear partitioning line between the layers. The foam material is regenerated cellulose.

Page three of the present application describes that according to an embodiment, the foam material is generated from cellulose, which is a foam containing framework of cellulose. The cellulose, usually sulphite pulp, is allowed to swell in sodium hydroxide and carbon disulphate is added and the cellulose is dissolved. In order to improve the mechanical strength in the material, for example, cotton fibers may be added. A dispersed salt in the form of sodium sulphate is added to the cellulose solution. The solution is heated and the cellulose is

regenerated and the salt is dissolved by washing the material with water thereby leaving a porous sponge-like structure. It is clear from the specification that the foam material is different than fibers.

Grafe discloses an absorbent article containing a stratified composite. The unitary stratified composite is composed of a first stratum and a second stratum that are integrally connected by a transition zone. As disclosed throughout *Grafe*, the stratum are fibers. For example, *Grafe* discloses in column 4, lines 55-58 that “[i]n a preferred embodiment, the first stratum includes a synthetic fiber and, more preferably, the first stratum includes polyethylene terephthalate.” It is clear that the strata are fibrous and do not include the claimed foam material. In fact, the only disclosure in *Grafe* relating to foam is made in connection with what is known as the “foam method” which is a method for forming a composite of fiber strata. Basically, the fibers are dispersed in a foamed liquid and then drained by a vacuum to remove the foam, thereby leaving a fibrous sheet (column 18, lines 18-30). *Grafe*’s process is similar to wet-forming used in normal papermaking, with the only difference being that a foamed liquid is used as a dispersion medium. In *Grafe*’s process, the foam is removed from the fibrous sheet and is thus not present in the absorbent fibrous structure as defined by the claims.

Grafe also discloses that the fibers of the first and second stratum can commingle with one another. In column 6, lines 38-44 *Grafe* states that “[t]he intimate commingling between the fibers of the first and second stratum of the unitary stratified composite of this invention provided by the transition zone enables more efficient drainage of the first stratum and fluid communication between the two strata than in absorbent products formed from separate and distinct acquisition and

storage layers.” Thus, it is disclosed that the first and second fibrous strata layers should be commingled with one another, but not that the fibrous strata layers can be, or should be, cellulosic foam layers commingled with one another.

The Official Action recognizes that *Grafe* does not disclose a foam material comprising at least two integrated layers, and relies on *Rezai* for a disclosure of that subject matter. *Rezai* discloses a cellulose foam layer 72, and a layer 71 that is composed of an absorbent macrostructure material comprising primarily absorbent gelling particles. In column 21, lines 18-21 *Rezai* describes that the substrate layer comprises a cellulosic foam and that, in general, a cellulosic foam will provide a higher liquid wicking rate over a longer wicking distance than a cellulosic fibrous web. However, *Rezai* does not disclose that a first and second foam layer could, or should be, formed by placing one on top of the other before they are dry so that the layers partly penetrate into each other so that there is no clear partitioning line between the layers.

The Official Action sets forth the idea that it would have been obvious to modify *Grafe* so that the strata layers of cellulose fibers are made from the foam material described in *Rezai* “to provide a higher liquid wicking rate,” and that it would have been obvious to commingle the resulting first and second strata layer of foam. However, there is no suggestion in either *Grafe* or *Rezai* that the foam described in *Rezai* should be, or could be, formed in two layers that are commingled with one another as disclosed in *Grafe* with regard to fibrous strata layers. That is, *Grafe* describes that the first and second fibrous strata layer should be commingled, but gives no indication that such is applicable to foam layers.

Therefore, there is no disclosure in either cited document that would have directed a skilled person in the art to replace the strata layers in *Grafe* with regenerated cellulose foam layers and to configure the foam layers so that they commingle as disclosed in *Grafe* with regard to fibrous strata layers. For at least those reasons, the disclosures of *Grafe* and *Rezai* do not together disclose the claimed combination of features including an absorbent structure comprising a compressed foam material wherein the layers are formed by placing one on top of the other before they are dry so that the layers partly penetrate each other so there is no clear partitioning line between the layers as defined by Claim 1.

Claim 17 is directed to an absorbent structure having a combination of features including an absorbent structure comprising a compressed foam material which expands upon wetting. As noted above with respect to Claim 1, neither *Grafe* nor *Rezai* disclose a first and second layer of regenerated cellulose foam that are formed by placing one on top of the other before they are dry so that the layers partly penetrate into each other so that there is no clear partitioning line between the layers. Thus, Claim 17 is allowable over *Grafe* in view of *Rezai* as relied upon in the Official Action.

New Claim 18 is directed toward an absorbent structure in an absorbent article, and defines that the absorbent structure is compressed foam material which expands upon wetting. As noted above, *Grafe*'s absorbent material is fibrous stratum. As noted above with respect to Claim 1, neither *Grafe* nor *Rezai* disclose a first and second layer of regenerated cellulose foam that are formed by placing one on top of the other before they are dry so that the layers partly penetrate into each other so that there is no clear partitioning line between the layers. Thus, Claim 18 is

allowable over *Grafe* in view of *Rezai* as relied upon in the Official Action. Also, it would not have been obvious to completely replace the fibrous strata disclosed in *Grafe* with compressed foam material. For at least that reason too, Claim 18 distinguishes over the cited disclosures.

Claims 2-4, 6, 11, 12 and 15-16 depend from Claim 1 and are therefore allowable for at least the same reasons.

For the reasons stated above, it is requested that all the rejections be withdrawn and that this application be allowed in a timely manner.

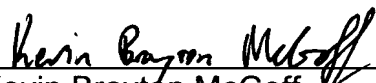
Should any questions arise in connection with this application, or should the Examiner feel that a teleconference with the undersigned would be helpful in resolving any remaining issues pertaining to this application, it is requested that the undersigned be contacted at the number indicated below.

Respectfully submitted,

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(including attorneys from BURNS DOANE SWECKER & MATHIS)

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